

## REMARKS

Claims 26, 28-30, 32-41, 44-46, and 48-50 remain pending herein.

1. Claims 26, 28-30, and 32-46 were rejected under 35 U.S.C. 112, first paragraph. Claim 26 has been amended to remove “and a substantially uniform width”. Accordingly, withdrawal of this rejection is requested.

2. Claims 26, 28-30, 32-46, and 48-50 were rejected under 35 U.S.C. 103(a) as being unpatentable over Iijima et al. (2001/0006042) in view of Vaidya et al. (US 5076203). This rejection is respectfully traversed for the following reasons.

### A. Claim 26

Claim 26 is drawn to a process for deposition of a coating on an HTS tape. The process specifically calls for translating a substrate along a substrate block having a curved contour with a radius of curvature of between 2 meters and 25 meters. The radius of curvature of the substrate block provides for an increased stability of the ion arrival angle, which is necessary to achieve a desired texture of the coating. Additionally, the substrate block includes a plurality of gas channels having a length extending from a manifold to the surface of the substrate block and being hollow along the entirety of the length, and the process includes injecting gas through the plurality of gas channels.

The PTO continues to rely upon Iijima et al. to allegedly teach the main features of the claimed invention. However, Iijima et al. do not teach or suggest injecting gas through gas channels of the substrate block. Further, Iijima et al. do not teach or suggest a substrate block having a radius of curvature of between 2 meters and 25 meters. The PTO has relied upon Vaidya et al. to allegedly overcome the deficiencies of Iijima et al.

Vaidya et al. teaches translating the substrate across a substrate drum having a diameter of the order of 1.5 meters, thus having a radius of curvature of 0.75 meters. As such, Vaidya et al. fail to teach translating the substrate along a substrate block having a radius of curvature of between 2 meters and 25 meters. Further, the substrate block disclosed by Vaidya et al. includes a porous portion through which the gas flows to the

substrate, rather than the gas channels having a length extending from the manifold to the first surface of the substrate block, and being hollow along the entirety of the length. As such, Iijima et al. and Vaidya et al., alone or in combination, fail to disclose translating the substrate across a substrate block having (1) a radius of curvature of between 2 meters and 25 meters, and (2) a plurality of gas channels extending through the substrate block having a length extending from a manifold to the first surface of the substrate block and being hollow along the entirety of the length. As such, the PTO has failed to establish a *prima facie* case of obviousness with respect to claim 26. Claims 28-30, 32-41, 44-46, 49, and 50 depend directly or indirectly from claim 26 and are allowable for at least the same reasons as claim 26. Therefore, Applicants respectfully request withdrawal of the 103(a) rejection over Iijima et al. and Vaidya et al. with respect to these claims.

#### B. Claim 48

Claim 48 is drawn to a process for deposition of a coating on an HTS tape. The process specifically calls for translating a substrate along a substrate block including a plurality of gas channels and injecting gas through the plurality of gas channels. The gas channels have a length extending from a manifold to the surface of the substrate block and a substantially straight centerline extending along substantially the entire length, and being hollow along the entirety of the length.

As discussed above, Iijima et al. do not teach or suggest injecting gas through gas channels of the substrate block and the PTO has relied upon Vaidya et al. to allegedly overcome the deficiencies of Iijima et al.

Vaidya et al. teaches a substrate block including gas channels filled with a porous portion through which the gas flows to the substrate, rather than the gas channels having a length extending from a manifold to the surface of the substrate block and a substantially straight centerline extending along substantially the entire length, and being hollow along the entirety of the length, as claimed. Additionally, the PTO suggests that injecting gas through the porous portion is equivalent to injecting gas through gas channels that are hollow and open along the entire length. However, one of ordinary skill in the art would recognize that a porous block and hollow, open gas channels are not

equivalent as the porous material acts as filter preventing debris in the gas supply or from the gas lines from reaching the substrate whereas the hollow, open gas channels would not. As such, Iijima et al. and Vaidya et al., alone or in combination, fail to disclose translating the substrate across a substrate block having a plurality of gas channels extending through the substrate block having a length extending from a manifold to the first surface of the substrate block and a substantially straight centerline extending along the length, and being hollow along the entirety of the length. As such, the PTO has failed to establish a *prima facie* case of obviousness with respect to claim 48. Therefore, Applicants respectfully request withdrawal of the 103(a) rejection over Iijima et al. and Vaidya et al. with respect to claim 48.

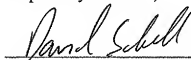
Applicants respectfully submit that the present application is now in condition for allowance. Accordingly, the Examiner is requested to issue a Notice of Allowance for all pending claims.

Should the Examiner deem that any further action by the Applicants would be desirable for placing this application in even better condition for issue, the Examiner is requested to contact Applicants' undersigned representative at the number listed below.

The Commissioner is hereby authorized to charge any fees, which may be required, or credit any overpayment, to Deposit Account Number 50-3797.

Date 1/7/09

Respectfully submitted,



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